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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Walter Apfelbacher

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EXAMINER

MAI, TIEN HUNG

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/565,808	Applicant(s) APFELBACHER ET AL.	
	Examiner TIEN MAI	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3,5-9,11 and 19-23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3,5-9,11 and 19-23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 June 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/03/2008 has been entered. Upon entering amendment, claims 1 and 19 have been amended; claims 21-23 have been added; claims 2, 4, 10 and 18; drawing objections, specification objections and claim rejection under 35 U.S.C 112, first and second paragraphs have been withdrawn.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the at least one of the current path has no operating switching device must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet,

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and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 5; please change "an output terminal" in line 2 to "the output terminal".
4. Claim 21; it is not understood what is meant by "the protective device is in the form of at least one of a semiconductor motor controller, a semiconductor contactor and an electromechanical switching device". It is not clear the protective device is both fuse and at least one of the semiconductor motor controller, a semiconductor contactor and an electromechanical switching device; while specification (paragraph [0016]) rather describes the protective switching device is also referred to as a semiconductor motor controller, a semiconductor contactor and or an electromechanical switching device. For purpose of examination, the above limitation is interpreted as "the protective switching device is in the form of at least one of a semiconductor motor controller, a semiconductor contactor and an electromechanical switching device".

Response to Arguments

5. Applicant's arguments with respect to claims 1 and 19 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 3, 5-9, 11, 13-17, 19-21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Narusevicius et al. (US 2003/0119382, "Narusevicius") in view of James (US 6,600,292, "James") and Jehlicka et al. (US 6,710,698, "Jehlicka").

8. **Regarding claims 1 and 19**, Narusevicius discloses medium voltage motor control center cold-welded electrical connector, the apparatus (fig. 2) comprising:

an operating switching (210) to switch a load (220) on and off;

a disconnection device (fuse holder as shown in figs. 19-23) to disconnect an input terminal from an output terminal, connectable to the load to be driven; and

a protective device (206) to protect the load to be driven against short circuits, wherein the protective device includes at least one fuse (206A-206C) in each phase for disconnection in the event of a short circuit,

wherein the operating switching device, the disconnection device and the protective device being connected in series (see figs. 2, 19, 20A and 20B) and being

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integrated in a housing (see fig. 3) (abstract), wherein the disconnection device includes two disconnection points (see figs. 19, 20A, 20B and 22).

Narusevicius does not explicitly disclose the at least one fuse is in the form of a semiconductor protective fuse. James discloses a semiconductor fuse (3) being used to protect the system against overcurrent (col. 2, lines 55-59). Jehlicka teaches several advantages of a semiconductor fuse, i.e. the semiconductor fuse does not require replacing after being tripped, and is ready for operation again right away (col. 1, lines 45-62). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the device of Narusevicius and employ a semiconductor fuse, as taught by James, because according to Jehlicka semiconductor fuse does not have to be replaced after being tripped, and is ready for operation again right away (col. 1, lines 45-62).

9. **Regarding claims 3, 17 and 20**, Narusevicius discloses that the at least one fuse is removable from the housing ([0013] and [0091]).

10. **Regarding claim 5**, Narusevicius discloses the protective device is arranged between the disconnection device and the output terminal to the load to be driven (see fig. 2).

11. **Regarding claim 6**, when the disconnection device in the open state, disconnects and releases the at least one fuse from at least one contact for removal is inherent to Narusevicius's system because the disconnection device is employed to provide safety reason ([0091]).

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12. **Regarding claim 7**, Narusevicius discloses that a slide mechanism for opening and closing the disconnection device (see figs. 19-22)

13. **Regarding claim 8**, Narusevicius discloses that the at least one fuse is in the form of a cylindrical form (see figs. 19 and 20A).

14. **Regarding claim 9**, Narusevicius discloses the disconnection device includes the functionality of a fused load disconnecter (see figs. 20A and 20B).

15. **Regarding claim 11**, Narusevicius discloses that the at least one fuse is arranged in a moving part (fuse clip) of the disconnection device (see figs. 20A and 20B).

16. **Regarding claim 13**, electronic switching points are bridgeable by mechanical device is inherent property in Narusevicius's contactor (210).

17. **Regarding claim 14**, Narusevicius discloses an overload device (temperature sensor 2714 shown in fig. 27 and [0107]).

18. **Regarding claim 15**, an overload relay is inherent to Narusevicius's system (fig. 27).

19. **Regarding claim 16**, Narusevicius discloses the protective switching device having three current paths (three phases). Neither Narusevicius nor James nor Jehlicka explicitly discloses at least one of the current paths has no operating switching device; this is viewed to be omission of an element and its function, which is dependent upon the operating condition and design requirement. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to eliminate one of the operating switching device and its function, since it has been held that omission

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of an element and its function in a combination where the remaining elements perform the same function as before involves only routine skill in the art. *In re Karlson*, 136 USPQ 184.

20. **Regarding claim 21**, Narusevicius's medium voltage electrical equipment is inherently an electromechanical switching device (see fig. 1).

21. **Regarding claim 23**, Narusevicius discloses a handle (operator handle not shown) on exterior of the protective switching device, the handle being connected to the moving part ([0096]).

22. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Narusevicius in view of James and Jehlicka, and further in view of Price (US 4,317,076, "Price").

23. Narusevicius, James and Jehlicka disclose the limitations as discussed above. Neither Narusevicius nor James nor Jehlicka explicitly discloses a monitor device for recording of tripping of the fuse. Price discloses a fuse is monitored continuously by voltmeter to indicate a blown fuse condition (col. 2, lines 25-65). It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the device of Narusevicius in view of James and Jehlicka and employ a monitoring device for the fuse, as taught by Price, in order to provide indication of blown fuse to personnel.

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24. Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Narusevicius in view of James and Jehlicka, and further in view of Combas (US 5,969,587, "Combas").

25. Narusevicius, James and Jehlicka disclose the limitations as discussed above. Neither Narusevicius nor James nor Jehlicka explicitly discloses the input and output terminals on exterior of the protective switching device; Narusevicius rather discloses the input and output terminals disposing interior of the protective switching device ([0004] and [0007]). Combas discloses in fig. 3 input and output terminals (26, 27A and 27B) disposing on exterior of a protective switching device (10). There are only two options for placing input and output terminals. Narusevicius discloses disposing the input and output terminals interior of the protective switching device; Combas discloses the input and output terminals on exterior of the protective switching device. It is up to designer to choose a location for the input and output terminals, which is convenience for him to design. His choice is limited to only two options "Obvious to try" – choosing from a finite number of predictable solutions. The claim would have been obvious because "a person of ordinary skill has good reason to pursue the known options within his or her technical grasp. If this leads to the anticipated success, it is likely the product not of innovation but of ordinary skill and common sense. It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the device of Narusevicius in view of James and Jehlicka and place the input and output terminals on external of the protective switching device, since it has been held that

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rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 181 F.2d 1019, 86 USPQ 70 (CCPA 1950).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to TIEN MAI whose telephone number is 571-270-1277. The examiner can normally be reached on M-Th: 8:00-7:00. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rexford Barnie can be reached on 571-272-7492. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

/Tien Mai/
Examiner, Art Unit 2836

/Danny Nguyen/
Primary Examiner, Art Unit 2836